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A5B

(54) Composition for skin care

(57) A cosmetic or dermatological composition for skin care, particularly to retard signs of ageing, comprises oenothera oil (Evening Primrose oil) and extract of spleen tissue and optionally adenosine triphosphate, cyclic adenosine 3', 5'-monophosphate, caeffine, theophylline, UV filters, and antioxidants.

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SPECIFICATION

Composition for skin care

The present invention relates to a new composition for skin care.

The invention provides a cosmetic or dermatological composition for skin care, comprising oenothera oil and extract of spleen tissue.

The invention provides also a method of cosmetically treating skin, which method comprises applying thereto a cosmetic amount of this composition.

The composition is intended in particular to retard signs of ageing on the skin.

In proportion to the development of cutaneous ageing, modifications take place, most of all at the epidermal and dermal levels. In the epidermis, the production of new cells no longer compensates for the desquamation and the epidermis gets progressively thinner. The sebaceous glands are functionally less active and therefore the skin becomes dry. At the level of the dermis, the formation of new collagen, responsible for the cutaneous tone, slows down due to the reduction of the secretion activity of the fibroblasts. Crossed intermolecular liaisons within the collagen fibres multiply, bringing on a structural rigidity, a reduction in the capacity to absorb water, and a reduction of nutritional supplies and oxygen.

These unfortunate transformations cause a lack of elasticity, dehydration, cutaneous asphyxia and dryness.

These phenomena lead to the appearance of wrinkles, in particular on the face where the skin is particularly attacked by factors of external origin (such as bad weather, pollution or luminous radiation) and factors of internal origin (such as illness or increase in age).

Numerous cosmetic preparations intended to combat ageing of the skin exist on the market already.

These preparations contain very varied substances, such as biological extracts, for example placental extracts, collagen, polyvitamin mixtures, or essential fatty acids.

However, never before has oil of oenothera, which is very efficient in combatting cutaneous drying caused as mentioned above, been associated with particular tissue extracts, that is to say extracts of spleen tissue, which are very active against the slowing down of cutaneous cellular activity.

One of the essential constituents of the present cosmetic or dermatological compositions is oenothera oil (extracted from the plant *Oenothera biennis*). Oenothera oil is particularly rich in essential polyunsaturated fatty acids, which are nutritional elements indispensable to the organism and which it cannot synthesize itself.

The deficiency of essential polyunsaturated fatty acids, which increases with age, leads to three cutaneous symptons:

- dry skin,
- loss of elasticity, and
- loss of transepidermal water.

Oenothera oil, due to its richness in essential fatty acids, including γ-linolenic acid, favours the regeneration of epidermal cells. In fact, the polyunsaturated fatty acids (such as linoleic acid, γ-linolenic acid and arachidonic acid) are indispensable for the integrity of the cellular membranes. The acids intervene in the role of a barrier applied to the epidermis which controls the loss of water from the skin. The application by the topical route of these 3 essential fatty acids and in particular γ-linolenic acid thus enables the hydration of the skin to be conserved.

Extract of spleen tissue is the second essential constituent of the cosmetic and dermatological compositions. The extracts contain a mixture of peptides and of proteins obtained by proteolysis of spleen. The spleen is preferably bovine spleen.

The spleen is an organ having a very active metabolism, and is rich in cellular base nutrients and in particular in energy-containing intermediates. It has been shown that extracts of spleen stimulate the growth and the multiplication of the cells, in particular of the fibroblasts, and increase the respiratory cellular activity (increase in consumption of oxygen by fibroblasts). These latter properties prevent the reduction of metabolic cellular activity, a principal cause of the appearance of signs of ageing.

The spleen tissue extracts are beneficial to the activity of the fibroblast cells of the dermis. Oenothera oil, as has been mentioned above, has ben ficial effects for the prevention of pidermal ageing and for the improvement of senescent integument.

The association together of the present two active principles in order to obtain cosmetic or dermatological preparations with synergistic action on the two cutaneous layers (epidermis and dermis) attacked during ageing is accordingly believed to be particularly useful.

The Applicant has shown that regular application of the present composition produces a very notable improvement in the hydration and the suppleness of the skin as well as a reduction in wrinkles.

The composition usually comprises oenothera oil, extract of spleen tissue, and cosmetically or dermatologically acceptable excipient. The composition preferably contains 2 to 20% by weigh of oenothera oil and 2 to 10% by weight of extract of spleen tissue.

The composition can also contain adenosine triphosphate (ATP) as it is or in the form of phosphorylated riboside or salts, and/or cyclic adenosine 3',5'-monophosphate (cyclic AMP). These two products increase and/or preserve the energizing potential of the cells of the skin because ATP is the principal energizing material and cyclic AMP is the intercellular messeanger responsible for all the phosphorylations which are essential for certain reactions such as the energizing use of glucids (glycogenolysis) and of lipids (lipolysis of the triglycerides).

The amount of the adenosine triphosphate (ATP) is preferably 0.01 to 5% by weight of the composition. The amount of the cyclic adenosine 3',5'-monophosphate (cyclic AMP) is preferably 0.01 to 5% by weight of the composition.

The composition can also contain caffeine or theophylline or any product likely to contain them, for example tea or coffee. In fact, caffeine and theophylline are methylxanthines, which are inhibitors of phosphodiestenase, the enzyme responsible for the degradation of the cyclic AMP, thus allowing the level of cyclic AMP in the composition to be maintained.

The composition can contain also small quantities of solar radiation filters or screens, for example UVA and UVB radiation filters such as hydroxy 2-methoxy 4-benzophene, or dimethoxy 3,4-phenyl glyoxylic acid in the form of the sodium salt. The composition can also contain products which block the formation of free radicals and oxygen singlets. These products enable solar radiation other than UV to be blocked. These products are for example terpenes, liposoluble carrot extract, or α-tocopherol.

The composition also advantageously contains an anti-oxidant, for example γ-oryzanol. All the substances mentioned above enable the skin to be protected from all harmful solar radiation, and a very effective photoprotective action to be obtained.

The composition can also contain a humectant, favouring the hydration of the skin, such as urea, pyrrolidone carboxylic acid or a salt thereof, a vitamin extract, a perfume, a preservative or colouring.

Collagen, elastin, or hyaluronic acid, which are substances known to have beneficial properties for the skin, can also be present in the composition.

One can include an extract of horsetail (Equisetum) or any other substance containing silicon, which improves the effects of collagen and of the hyaluronic acid.

The cosmetic or dermatological composition according to the invention can be presented in any form used in cosmetics: such as creams or gel in pots or tubes, or milk, oil or lotion, in a glass or plastic bottle, possibly a measuring bottle, or in phials.

The invention accordingly provides the cosmetic or dermatological composition in the form of cream, gel, milk, lotion or oil for the skin. The composition is preferably adapted, particularly by reason of excipients therein, for application to the face and neck.

Appropriate excipients can be used for each form. These excipients should have all the usually required qualities. They should be endowed with a great affinity for the skin, be well tolerated and stable, and possess an adequate consistency enabling easy and pleasant use. As examples of excipients there can be mentioned, for the cream form, a mixture of isopropyl myristate, glycerol stearate, sweet almond oil, cetyl alcohol and polyhydric alcohol (preferably in amounts respectively of 5g, 15g, 6g, 1g and 5g for 100 g of distilled water).

Emulsifiers present can be for example a mixture of methyl glucoside polyoxyethylene (20) sesquistearate and of methyl glucoside sesquistearate.

For the milk form, there may be mentioned a mixture of sorbitan monostearate, cetyl polyoxyethyl ether, vaseline oil, isopropyl palmitate, bees-wax and polyhydric alcohol (preferably in amounts respectively of 1g, 3g, 5g, 5g, 1g and 5g for 100g of distilled water). For the gel form, there may be mentioned a carboxyvinyl polymer combined with triethanolamine and an ester of a fatty acid (preferably in amounts respectively of 3g, 3g and 5g for 100g of distilled water). For the oil form, there may be mentioned triglycerides of fatty acids combined with perhydrosqualene (preferably in amounts respectively of 30g and 20g per 100g of vegetable oil).

The various cosmetic forms mentioned above can be obtained by the methods usual in this field.

The invention is illustrated by the following Examples.

Example 1 : Cream

- esters of fatty acids	7 g
- cetyl alcohol	1 g
- stearate of glycerol and of PEG (polyoxyethylene glycol) 100	6 g
- ester of propylene glycol and fatty acids	7 g
- benzophenone	1 g
- oenothera oil	5 g
- propylene glycol	5 g
- preservatives	q.s.
- carboxyvinyl polymer	0.5g
- triethanolamine	0.5g
- extract of spleen tissue	3 g
- aromatic composition	9 g
- distilled water q.s. for	100 g

Example 2: Milk

- stearate of glycol and of PEG 100	5 g
- vaseline oil	3 g
- silicone oil	1 g
- lanolin derivative	8 g
- oenothera oil	3 g
- sorbitol	5 g
- extract of spleen tissue	2 g
- carboxyvinyl polymer	0.5g
- triethanolamine	0.5g
- preservatives	q.s.
- aromatic composition	q.s.
- distilled water q.s. for	100 g

Example 3 : Cream

- Lipids of natural and synthetic origin	15 g
- oenothera oil	8 g
- mixture of mono-, di- and tri-alkylglycolether-o-phosphates	5 g
- solar filters UV.A and UV.B	2 g
- γ-orizanol	0.5g
- carboxyvinyl polymer	0.7g
- triethanolamine	0.6g
- extract of spleen tissue	3 g
- extract of coffee/tea	5 g
- extract of horsetail (Equisetum)	1 g
- ATP disodium salt	0.02g
- urea	0.5g
- preservatives	q.s.
-aromatic composition containing terpenes	q.s.
- Water q.s. for	100 g

Example 4 : Cream

- glucate SS (methyl glucoside sesquistearate)	3 g
- glucamate SSE 20 (methyl glucoside polyoxyethylene 20 sesquistearate)	2 g
- oenothera oil	10 g
- esters of fatty acids	7 g
- sterols of vegetable origin	5 g
- liposoluble extract of carrot	0.2 g
- γ-tocopherol (vitamin E)	0.05g
- solar filters UV.A and UV.B	3 g
- magnesium aluminium silicate	1.2 g
- extract of spleen tissue	5 g
- preservatives	q.s.
- sodium pyrrolidone carboxylate	2 g
- hyaluronic acid	0.03g
- ATP phosphoryl riboside	0.025g
- cyclic AMP	0.02g
- aromatic composition	0.3g
- water q.s. for	100 g

CLAIMS

1. Cosmetic or dermatological composition for skin care, comprising oenothera oil and extract of spleen tissue.

2. Composition according to claim 1 comprising oenothera oil, extract of spleen tissue, and cosmetically or dermatologically acceptable excipient.

3. Composition according to claim 1 or 2 wherein the spleen tissue is bovine spleen tissue.

4. Composition according to any one of claims 1-3 containing 2 to 20% by weight of oenothera oil and 2 to 10% by weight of extract of spleen tissue.

5. Composition according to any one of the preceding claims containing also adenosine triphosphate.

6. Composition according to claim 5 containing 0.01 to 5% by weight of adenosine triphosphate.

7. Composition according to claim 5 or 6 wherein the adenosine triphosphate is present as such or in the form of phosphorylated riboside or salt.

8. Composition according to any one of the preceding claims containing also cyclic adenosine 3',5'-monophosphate.

9. Composition according to claim 8 containing 0.01 to 5% by weight of cyclic adenosine 3',5'-monophosphate.

10. Composition according to any one of the preceding claims in the form of a cream, gel, milk, lotion or oil for the skin.

11. Composition according to any one of the preceding claims adapted for application to the face and neck.

12. Composition comprising oenothera oil and extract of spleen tissue, which composition is substantially as described herein.

13. Composition comprising oenothera oil and extract of spleen tissue, which composition is substantially as described herein in any one of the Examples.

14. Composition for use in a method for the dermatological treatment of the skin, which composition is as claimed in any one of the preceding claims.

15. Method of cosmetically treating skin, which method comprises applying thereto a cosmetic amount of a composition claimed in any one of claims 1-13.

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